

In the United States Patent and Trademark Office
Board of Patent Appeals and Interferences

Reply Brief

In re the Application of:

METHOD, SYSTEM, AND PROGRAM FOR PREPROCESSING A DOCUMENT TO
RENDER ON AN OUTPUT DEVICE

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In the Examiner's Answer, the Grounds of Rejections on pgs. 3-8, repeat the same grounds set forth in the Final Office Action dated November 28, 2005.

- A. Claims 1, 4, 9-11, 14, 15, 18, 23-25, 28, 29, 32, 37-39, 42, 43, 45, and 47 are Patentable Over Adler in View of Saito
1. Claims 1, 15, and 29

In the Response to Arguments with respect to claims 1, 15, and 29, the Examiner continues the finding that Adler's result tree teaches the claimed generating multiple page objects, wherein each page object includes the source content in the presentation language used in the source document and the determined formatting properties for one page, wherein at least one page object has multiple content elements, and wherein the content elements include content to place on the pages. (Examiner Answer, pgs. 8-10)

The Examiner continues to find that the "formatting objects" of Adler teach the claimed page objects because the formatting objects denote typographic abstractions such as page, paragraph, and table. The Examiner references the figure on page 19, which shows a transformation of a source tree into a result tree having formatting objects for nodes. The Examiner then states that the "result tree has formatting objects for nodes which include the original XML content and formatting information necessary to properly the display the content." (Examiner Answer, pg. 9).

Applicants traverse because the Examiner has not cited any part of Adler that teaches that the result tree includes source content in the presentation language used in the source document. Instead, Adler mentions that the result tree includes "objects primarily in the 'formatting object' namespace". (Adler, pg. 18) Applicants submit that

formatting objects in a “formatting object namespace” do not teach source content in the presentation language used in the source document.

The Examiner further continues the finding that the result tree comprises page objects. According to the Examiner the “result tree consists of formatting objects which correspond to typographic abstractions such as pages, also known as ‘page objects,’ if the document being processed consisted of more than one page of data the result tree would be required to have multiple page objects.” (Adler, pgs. 9-10) Applicants traverse.

The claims require that each page object has content in the presentation language in the source document and formatting properties for one page. The cited result tree comprises one tree having formatting objects, where certain formatting object classes may provide typographic abstractions, including pages. (Adler, pgs. 17-18) Applicants submit that a tree of formatting objects, as mentioned in Adler, does not teach or suggest multiple page objects, where each page object includes source content in the presentation language of the source document and formatting properties for one page. The Examiner has not cited any part of Adler that teaches that the cited formatting objects of a page class include source content in the presentation language of the source document and formatting properties for one page.

Moreover, the claims require that the page objects be transmitted to a rasterizer to transform into renderable information. In the Response, the Examiner found that the Figure on page 18 of Adler shows the result tree is transmitted to a printer if that is the selected output, where rasterizing means printed. (Examiner Answer, pgs. 10-11) Applicants traverse.

Adler mentions that that the result tree is further processed to generate a formatting object tree. An area tree is then constructed from the semantics of each formatting object, where the areas are positioned on one or more pages. (Adler, pgs. 21-23). Thus, the cited formatting objects, which the Examiner likens to the claimed page objects, are not transmitted to a rasterizer as required by the claims. Instead, they are used to construct a tree of geometric areas that are then positioned on pages to send to the device for rendering. Adler mentions that each geometric area has a position on the page, a specification of what to display in that area, and may have a background, padding, and borders. (Adler, pg. 20)

The Examiner has not cited any part of Adler that teaches that the information transmitted to the device, which Adler describes as geometric areas of what to render on a page, include source content in the presentation language of the source document and formatting properties for one page. Instead, Adler mentions that geometric areas generated from the tree of formatting objects positioned on one or more pages are sent to the output device, shown as a printer, cell phone and user interface.

Applicants submit that Saito does not address the above mentioned shortcomings of Adler because the Examiner did not site Saito with respect to the shortcomings of Adler. The Examiner cited col. 1, lines 31-57 of Saito as teaching that a structured document could consists of two parts a layout structure and logical structure (source content). (Examiner Answer, pgs. 10, 11)

As discussed, Adler discusses formatting objects in a formatting tree, which do not teach the claimed page objects. Thus, if one were to modify Adler's formatting objects with Saito, as the Examiner proposes, one would have formatting objects having

the layout structure of Saito. This proposed modification of the formatting objects of Adler, even if feasible, still does not teach or suggest the claim requirements of page objects having source content in the presentation language used in the source document and determined formatting properties for one page that are transmitted to the rasterizer to transform.

Because the cited combination of art does not teach or suggest all the claim requirements, alone or in combination, Applicants submit that the rejection of claims 1, 15, and 29 should be withdrawn.

Applicants submit that the rejections with respect to dependent claims 4, 9-11, 14, 18, 23-25, 28, 32, 37-39 42, 43, 45, and 47 should be withdrawn because these claims depend from claims 1, 15, and 29, which are patentable over the cited art for the reasons discussed above.

2. Claims 2, 16, and 30

Claims 2, 16, and 30 depend from claims 1, 15, and 30 and further require that the source document includes statements in a first presentation language and transforming the source document and source content therein into a result document in a second presentation language, wherein the result document includes the source content and the formatting properties provided by the layout data structure, wherein the formatting properties indicate page divisions of the content, and wherein the multiple page objects are generated from the result document.

In the Response, the Examiner found that the arguments Applicants presented with respect to these claims are the same as those with respect to the base claims, so the same rationale for rejecting applied. (Examiner Answer, pg. 12).

Applicants submit that the cited Adler does not teach or suggest that the result tree in a second presentation language include source content in a first presentation language used in the source document. Instead, the cited Adler discusses formatting objects in a “vocabulary of formatting objects supported by XSL.” (Adler, pg. 20). Thus, if one presumes that the formatting object vocabulary of Adler corresponds to the claimed second presentation language, then there is still no disclosure that the formatting objects of Adler include source content in a first presentation language that is different from the second presentation language of the result tree, i.e., the vocabulary of the formatting objects.

The Examiner further cited the “simple page masters” of Adler on pg. 27, Section 1.2.3 as teaching the claim requirement of multiple page objects generated from the result document. (Examiner Answer, pg. 12) Applicants traverse.

The cited pg. 27 discusses how a layout structure is defined in terms of one or more instances of a “simple page master” formatting objects that allows one to define independently filled regions for the body, a header, a footer and sidebars on a page. The formatting objects of Adler comprise nodes in the result tree. (See, Adler, pg. 19) Thus, one node in the result tree may define independently filled regions for the body, header, etc. Nowhere does pg. 27 anywhere teach or suggest that multiple page objects are generated from the result document. Instead, the cited pg. 27 discusses how the nodes of

a result tree may include a “simple page master” object to define filled regions of stylized content.

Because the cited combination of art does not teach or suggest all the claim requirements, alone or in combination, Applicants submit that the rejection of claims 2, 16, and 30 should be withdrawn.

3. Claims 8, 22, and 36

Claims 8, 22, and 36 depend from claims 2, 16, and 30 and further require that the page objects include content and formatting properties in the second presentation language, which is the language of the result document.

In the Response, the Examiner contended that Applicants explanation of the patentability of these claims over the cited art did not comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the claim language distinguishes over the cited art. (Examiner Answer, pgs. 12-13) Applicants traverse.

In the Appeal Brief (pg. 15), Applicants specifically explained the claim requirements that are not taught in the cited art. As discussed, the cited pgs. 20-21 of Adler discusses formatting objects and the cited pgs. 25-27 of Adler also discusses formatting objects and page sequences. Although the cited Adler discusses formatting objects in a result tree, Adler notes that the “formatting objects and formatting properties provide the vocabulary for expressing presentation intent”, or a presentation language. (Adler, pg. 18) Nevertheless, the cited Adler does not teach that page objects generated from the result document include source content in the first presentation language of the

source document as well as content and formatting properties in the second presentation language used in the result document, which in the cited Adler is the vocabulary of the formatting objects. The Examiner has not cited any part of Adler that teaches or suggests generating page objects from the result document having content and formatting properties in the first and second presentation languages, or including content in the presentation language of the source document as well as the presentation language of the result tree.

Applicants thus traverse the grounds of this rejection and the Examiner's finding that Applicant's arguments do not comply with 37 CFR 1.111(b) because Applicants have specifically explained why the cited art does not teach or suggest the claim requirement of generating page objects from the result document having content and formatting properties in the first and second presentation languages.

4. Claims 44, 46, and 48

Claims 44, 46, and 48 depend from claims 43, 45, and 47 and further require that page sequence elements include content elements and accessing page sequence elements according to an ordering of the page sequence elements, wherein the content elements within the accessed page sequence elements are added to page objects.

In the Response, the Examiner contends that Applicants explanation of the patentability of these claims over the cited art did not comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the claim language distinguishes over the cited art. (Examiner Answer, pg. 13) Applicants traverse.

In the Appeal Brief (pg. 16), Applicants specifically explained the claim requirements that are not taught in the cited art. Applicants specifically explained why the cited Saito and art does not teach the claim requirement of page sequence elements including content elements, such that the page sequence elements are accessed according to an ordering and then the content elements within the accessed page sequence elements are added to the page objects.

The Examiner continued to cite col. 1, lines 31-57 of Saito and pg. 27, section 1.2.3 of Adler as teaching these claim requirements. (Examiner Answer, pgs. 13-14) Applicants traverse.

The cited col. 1 of Saito mentions that a document has a layout structure and a logical structure, where the content of a document is linked to logical objects positioned at the lowest level of a specific logical structure. This structure enables automatic layout processing. The cited col. 1 discusses a process in which if a certain document is not laid out in a subordinate structure of a page object, a new page object is generated and the overflowed document is laid into the new page object.

Although the cited Saito discusses laying out document content in page objects, nowhere is there any teaching of page sequence elements including content elements, such that the page sequence elements are accessed according to an ordering and then the content elements within the accessed page sequence elements are added to the page objects. Nowhere does the cited Saito anywhere teach or suggest the claim requirement of including content elements in page sequence elements to determine how to add content elements to page objects.

The cited pg. 27 of Adler discusses a layout structure having instances of a “simple-page-master object” to define independently filled regions of the body, a header, a footer, and sidebars. The simple-page-masters can be used in page sequences that specify in which order the simple-page-masters will be used.

Although the cited Adler discusses page master objects, the Examiner has not cited any part of Adler that teaches that content elements within the simple-page-master objects are added to page objects having source content in the presentation language used in the source document and formatting objects.

Applicants thus traverse the grounds of this rejection and the Examiner’s finding that Applicant’s arguments do not comply with 37 CFR 1.111(b) because Applicants have specifically explained why the cited art does not teach or suggest the requirements of claims 8, 22, and 36.

B. Rejection Under 35 U.S.C. §103(a) Over Adler in View of Saito and Barry

1. Claims 5, 7, 19, 21, 33, and 35

Claims 5, 7, 19, 21, 33, and 35 are patentable over the cited art because they depend from base claims 1, 15, and 29, which are patentable over the cited art for the reasons discussed above. Moreover, the dependent claims provide additional grounds of patentability over the cited art for the following reasons.

Claims 5, 19 and 33 depend from claims 2, 16 and 30 and require that the page objects include formatting properties in a third presentation language, where according to the intervening claims the page objects also include content and formatting properties in a first presentation language and the result document is in a second presentation language.

In the Response, the Examiner contends that Applicants' explanation of the patentability of these claims over the cited art did not comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the claim language distinguishes over the cited art. (Examiner Answer, pg. 14) Applicants traverse.

In the Appeal Brief (pg. 17), Applicants specifically explained the claim requirements that are not taught in the cited art. Applicants specifically explained why the cited Barry and other art does not teach the claim requirement that the page objects include formatting properties in a third presentation language, different from the first presentation language of the source document and second presentation language of the result document.

The Examiner cited col. 1, line 24 to col. 3, line 11 of Barry as teaching an additional presentation language, a page description language – image bit-map. (Examiner Answer, pg. 14) Although multiple presentation languages may be known, Applicants submit that the Examiner has not cited any part of the combination of references that teaches that a page object includes content in the first presentation language used in the source document and formatting properties in a third presentation language, such that the page objects are generated from a result document in a second presentation language.

Applicants thus traverse the grounds of this rejection and the Examiner's finding that Applicant's arguments do not comply with 37 CFR 1.111(b) because Applicants have specifically explained why the cited art does not teach or suggest the requirements of claims 5, 19, and 33.

C. Rejection Under 35 U.S.C. §103(a) Over Adler in View
of Saito, Barry, and Sall

1. Claims 6, 20, and 34

Claims 6, 20, and 34 are patentable over the cited art because they depend from base claims 1, 15, and 29 and intervening claims 5, 19, and 33, which are patentable over the cited art for the reasons discussed above, and because the additional requirements of these claims in combination with the base and intervening claims provide further grounds of patentability over the cited art.

Conclusion

Each of the rejections set forth in the Final Office Action is improper and should be reversed.

Respectfully submitted,

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